

S/123/61/000/013/011/025  
A052/A101

Investigation of rigidity of gear ...

of forces of inertia coincides with the frequency of the transverse table travel.  
3) The rigidity of the spindle assembly at a static load changes with the load  
(at small loads up to 6kG,  $J_{sp} = 400 \text{ kg/mm}$ ; at loads over 6 kG,  $J_{sp} = 850 \text{ kg/mm}$ ).  
The dynamic rigidity of the spindle assembly within the investigated interval of  
loads up to 25 KG remains constant:  $J_{sp} = 500 \text{ kg/mm}$ . 4) Equations for forces  
derived theoretically and checked experimentally are necessary for calculating  
the precision of machining. These equations and experimental data on rigidity  
of the main assemblies of the machine tool enable one to control to a certain  
extent the process of machining precision gears and indicate the ways of creating  
the most rational technological process with allowance for rigidity of the  
system and efficiency. There are 31 figures and 6 references.

V. Belyayev

[Abstracter's note: Complete translation]

Card 2/2

YAKIMOV, A.V.; KRAVCHENKO, G.G.

Form grinding of gas-turbine blades on the KhSh-65  
machines. Stan.1 instr. 31 no.3:10-12 Mr '60.  
(MIRA 13:6)

(Grinding and polishing)

YAKIMOV, A.V., dotsent; KAZLMIRCHIK, Yu.A., inzh.; MOKROUS, M.F., inzh.

Evaluating industrial methods for determining the rigidity of  
machine tools. Izv.vys.ucheb.zav.; mashinostr. no.2:189-194  
'62. (MIRA 15:5)

1. Zaporozhskiy mashinostroitel'nyy institut.  
(Machine tools--Testing)

ACCESSION NR: AP4044382

S/0122/64/000/008/0064/0067

AUTHORS: Yakimov, A. V. (Candidate of technical sciences); Kazimirchik, Yu. A. (Engineer); Sipaylov, V. A. (Engineer)

TITLE: Investigation of temperatures in the zone of grinding

SOURCE: Vestnik mashinostroyeniya, no. 8, 1964, 64-67

TOPIC TAGS: metal, grinding, cutting zone/ 12Kh2N4A steel, Kh20N80 wire, EB25SM2K magnetic core, N-102 oscilloscope

ABSTRACT: Determining the temperature in the grinding zone and its dependence upon the type of cutting was cited as an important part of finishing operations. Figure 1 on the Enclosure is a schematic diagram of a proposed apparatus for making such determinations. Here (2) is a holder for the specimen (1); (4) are thermoelectrodes, (3) is an abrasive wheel, (5) is a copper cone, (6) is a copper plate, (7) is an oscilloscope system. Oscillograms are presented showing the temperature changes in the cutting zone for a 12Kh2N4A steel specimen. More accurate results were obtained using a special core EB25SM2K with Kh20N80 wire windings of 0.2 mm. thickness placed in grooves along the core face. Using the improved core the oscillograms showed temperature fluctuations more accurately. Oscilloscope N-102 was used in the tests.

Card 1/3

ACCESSION NR: AP4044302

Results revealed that the grinding temperature climbs rapidly during the first 7 seconds (about 700C increase) but rises only about 150C during the next 6 seconds. Test results were plotted (grinding depth vs temperature) for several grinding rotation velocities. Additional graphs showed the structure of the surface layer of a ground sample (12Kh2N4A). In these graphs the axes of the plot were calibrated for ground depth and for surface hardness. Orig. art. has: 7 figures.

ASSOCIATION: none

SUBMITTED: OO

ENCL: 01

SUB CODE: MM

NO REF SOV: 000

OTHER: 000

Card 2/3

ACCESSION NR: AP4044382

ENCLOSURE: 01

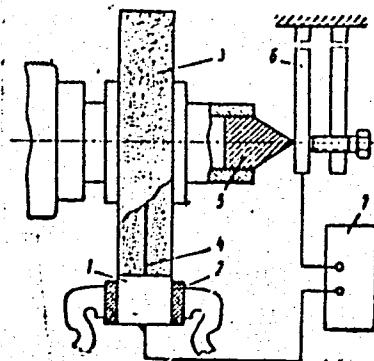


Fig. 1.

Cord 3/3

YAKIMOV, A V., kand. tekhn. nauk; KAZIMIRCHIK, Yu.A., inzh.; SIPAYLOV, V.A.,  
inzh.

Investigating temperatures in the grinding area. Vest. mashinostr.  
(MIRA 17:9)  
44 no.8:64-67 Ag '64.

SHERYSHEV, V.I.; YAKIMOV, A.V.; KAZIMIRCHIK, Yu.A.

Force dependences in grinding gears with dish wheels. Stan.  
i instr. 36 no.10:9-10 0 '65. (MIRA 18:11)

L 27909-66	EHT(m)/EWA(d)/T/EWP(t)/ETI/EWP(k)	IJP(c)	JD/DJ
ACC NR: AP601771b	SOURCE CODE: UR/0122/66/000/003/0069/0072		
AUTHOR: Sipaylov, V. A. (Engineer); Yakimov, A. V. (Candidate of technical sciences); Potemkin, V. I. (Engineer); Ivanov, S. A. (Engineer)			
ORG: none			
TITLE: Phenomena which take place in the surface layer during <u>grinding</u>			
SOURCE: Vestnik mashinostroyeniya, no. 3, 1966, 69-72			
TOPIC TAGS: steel; case hardening, annealing, tempering, transmission gear, hardness, grinding, cold working, thermocouple, potentiometer, metallographic examination/12Kh2N4A steel			
ABSTRACT: The combination of mechanical and thermal effects which accompany the grinding process causes a considerable change in the physical and chemical state of the surface layer in many cases which may reduce the bearing capacity of components; therefore, it is important to study the thermal processes which take place in the surface layer during grinding and to seek methods for controlling these processes.			
Cylindrical spur gears ( $m = 3.85$ mm, $z_k = 31$ , $\alpha' = 20^\circ$ , $b = 35$ mm) made from 12Kh2N4A steel were studied. The gears were case hardened to a depth of 1.1-1.3 mm at $900^\circ$ centigrade, annealed at $650^\circ$ C, double annealed at $860 \pm 20^\circ$ C and at $800 \pm 20^\circ$ C, cold-worked in liquid nitrogen and tempered at $150 \pm 10^\circ$ C. The experiments were done on a Maag SS30Kh gear hob. An EB25M2K wheel was used for removing a decarburized layer of 0.1 mm in 10 passes at $t = 0.008-0.01$ mm.			
Card 1/3	UDC: 621.923		

L 27909-66

ACC NR: AP601771b

$v_{kv} = 27 \text{ m/sec}$ ,  $s_{np} = 100 \text{ mm/min}$  and  $n = 225$  oscillations per minute. After preliminary grinding the experiments were done with the same wheel at  $t = 0.02$ ,  $0.04$ ,  $0.06$  and  $0.08 \text{ mm}$ ,  $s_{np} = 100$ ,  $200$  and  $300 \text{ mm/min}$ . The grinding wheels were checked for hardness and density before the experiments and trued on both sides and carefully balanced.

The actual temperature fields were concentrated in a region having a depth of  $0.1\text{--}0.2 \text{ mm}$  and were inaccessible to direct measurement. The temperature field was therefore simulated to clarify the nature of temperature distribution and its relationship to grinding conditions. The model was a unit which could be used for moving a carbon electrode along the surface of a  $12\text{Kh2N4A}$  steel specimen. An electric current was sent through the contact area between the electrode and the specimen and the heat released was checked by measuring the electrical power. An EPP-09 potentiometer and a chromel-alumel thermocouple were used for recording the temperature field of the model.

Distribution of heat between the workpiece and the chip varies with the depth of cut. The amount of heat which goes to the chip may be disregarded for light cuts ( $t = 0.02 \text{ mm}$  or less). This heat increases with cutting depth and at  $0.1 \text{ mm}$  is nearly 25% of the total heat for  $12\text{Kh2N4A}$  steel. In spite of the insignificant difference in temperatures in the grinding zone between  $0.02$  and  $0.1 \text{ mm}$ , the structural transformations during grinding vary with cutting depth in this interval. Metallographic studies were confirmed by analysis.

Card 2/3

L 27909-66

ACC NR: AP6017714

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Changes in microhardness revealed that structural transformations take place in the surface layer of carburized steels under the action of high temperatures during grinding. The temperature in the grinding zone must be lowered to reduce these structural transformations. This may be accomplished by reducing the severity of operating conditions (which is extremely undesirable since this also results in a sharp reduction in productivity) or by using sectional grinding wheels. Experiments on intermittent grinding at the Perm Polytechnical Institute indicate that thermal processes may be controlled and the quality of the surface layer may be improved by varying the size of the cutting sections on sectional wheels. Orig. art. has: 8 figures, 4 formulas and 1 table. [JPRS]

SUB CODE: 13, 20, 11 / SUBM DATE: none / ORIG REF: 005

Card 3/3 BLG

GRISHAYEV, I.A. [Hryshairov, I.O.]; KOLOSOV, V.I.; MYAKOTA, V.I.  
[M'akota, V.I.]; YAKIMOV, B.V. [Iakymov, B.V.]

Eliminating the effect of a harmful magnetic field component  
in a magnetic undulator. Ukr.fiz.zhur. 4 no.6:810-812 N-D '59.  
(MIRA 14:10)

1. Fiziko-tehnicheskiy institut AN UCSR.  
(Magnetic fields) (Magnetic instruments)

7-3260

AUTHORS:

Gribanov, I. A., Kolesov, V. I.,

Nekrasov, D. V.

5/22/60/5/11/01/016/000

2013/007

6585

TITLE:

The Experimental Determination of the Power of the Shallow-

water Wave in a Magnetic Oscillator

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PERIODICAL:

Soviet Academy Akademiia Nauk SSSR, 1960, Vol 131, No 1, pp 61 - 63

(USSR)

ABSTRACT:

The present paper describes the preliminary results obtained by determining the maximum mean power of the electromagnetic oscillations in the submillimeter range. The power to be determined is excited by relativistic  $\beta$ -ray electrons in a magnetic oscillator. With an average electron current of 4 ma,  $\sim 10^{-7}$  w was obtained for the level of the mean power. The production of a radiation in the terahertz-millimeter range and in the submillimeter range is of several practical interests. Such electromagnetic oscillations can at present be produced only by means of particle accelerators and heated bodies. However, the power levels obtained in this way are very low. The unidirectional method of producing high-frequency oscillations, which is based upon

making the double Doppler-effect of frequency transformation, makes it possible to bridge the entire range of electromagnetic oscillations from 1 m to visible light. The level of the emitted power may actually be more conveniently large, even in the case of an incoherent radiation. For that frequency of radiation holds a magnetic oscillator for the free space  $v = \sqrt{1/(1 - \rho_0^2)}$  [ $\rho_0$  - the ratio of magnetic structure  $\rho = V/c^2$ ,  $V$  - the angle between the direction of motion and the direction towards the observer. The production of electromagnetic oscillations may, in a sufficiently wide frequency-range, be determined by measuring electron current (with constant  $I_0$ ). The undulator used in the present paper consists of separate electroscopes, in which it was possible to find, comparatively the harmful components of the acceleration. Now, if the input microwave passed through the undulator unchanged, then the wave guide dimensions were fixed, a decrease of spectrum of electromagnetic oscillations was obtained because of the difference of the excited oscillations. This spectrum is subdivided into the two principal ranges of 100 to 150 s and

Card 2/4

50 to 67 s. The main part of the lines produced is in the latter range. At present, measurements of the entire power of radiation of the entire spectrum investigated are being carried out, and preparations are made for recording the spectrum. Figure 1 shows the scheme of the device. The situation of background is briefly dealt with. The power of electron radiation in the undulator is proportional to  $\beta^2$ , and therefore  $P(E) \propto \frac{\beta^2}{E^2}$

holds. Herefrom and from another equation it is possible to calculate the absolute amount of radiation intensity for a given magnetic field. The results obtained are being carried out, and preparations are made for recording the spectrum. Figure 1 shows the scheme of the device. The situation of background is briefly dealt with. The power of electron radiation in the undulator is proportional to  $\beta^2$ , and therefore  $P(E) \propto \frac{\beta^2}{E^2}$

Card 3/4

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii Nauk USSR (Institute of Physics and Technology of the Academy of Sciences of USSR)

BRUSSELS

PRESIDENT: September 16, 1959, by M. A. Leonovich, Academician  
SUBMITTED: September 1, 1959

4

SHORIN, V., kand. tekhn. nauk; YAKIMOV, E., inzh.

Reducing the maximum of the electric load on feeders. Rech.  
transp. 22 no.9:21-23 S '63. (MIRA 16:10)

YAKIMOV, F.I., inzh.

Erecting poles for electric transmission lines at the construction site of the Stalingrad Hydroelectric Power Station. Biul. stroi. tekhn. 12 no. 6:5-8 Je '55. (MIRA 11:12)

1.Trest Stal'montazh.

(Electric lines--Poles)  
(Stalingrad Hydroelectric Power Station)

PLATONOV, P.P.; YAKIMOV, F.Ya., red.; PETROV, G.P., tekhn.red.

[Forty years of Chuvashia in figures] Chuvashiia za 40 let  
v tsifrakh. Cheboksary, Chuvashskoe gos.izd-vo, 1960. 194 p.  
(MIRA 13:12)

1. Zamestitel' nachal'nika Statisticheskogo upravleniya Chu-  
vashskoy ASSR (for Platonov). 2. Nachal'nik Statisticheskogo  
upravleniya Chuvashskoy ASSR (for Yakimov).  
(Chuvashia--Statistics)

YAKIMOV, G., general-mayor

Strictness is a significant feature of party guidance. Komm.-  
Vooruzh.Sil 2 no.13:25-31 Jl '62. (MIRA 15:7)

1. Nachal'nik politupravleniya Sibirskogo voyennogo okruga.  
(Russia--Army--Political activity)

*YAKIMOV*  
SHABALIN, A.Ye.; YAKIMOV, G.D., aspirant; NOVIKOV, N.Ye., aspirant.

"Machines and apparatuses in the paper industry" by B.A. Gaevskii,  
Reviewed by A.E. Shabalin, G.D. Yakimov, N.E. Novikov. Bus.proz.  
32 no.2:29-31 F '57. (MLRA 10:5)

1.Glavnyy inzheher Proizvodstvennogo upravleniya Ministerstva  
bumazhnoy i derevoobrabatyvayushchey promyshlennosti USSR (for  
Shabalin) 2.Leningradskiy tekhnologicheskiy institut im. V.M. Molotova  
(for Yakimov, Novikov)  
(Paper industry) (Papermaking machinery)

YAKIMOV, G.D., prepodavatel' kafedry "Mashiny i apparaty tsellyulozno-bumazhnykh proizvodstv"

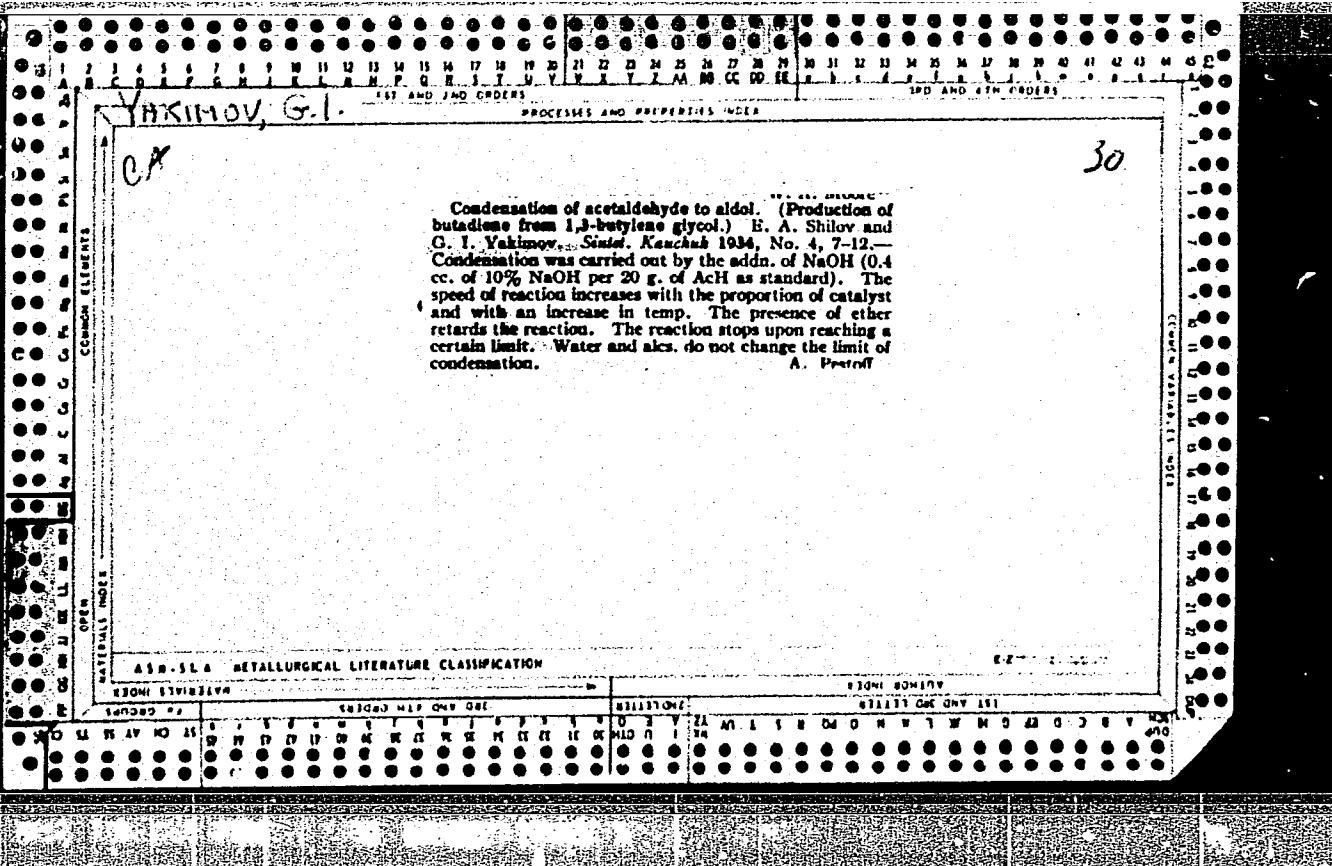
Construction parameters of wires for modern newsprint making machines. Bum.prom. 34 no.12:20-22 D '59. (MIRA 13:4)

1. Leningradskiy tekhnologicheskiy institut tsellyuloznoy i bumazhnoy promyshlennosti.  
(Papermaking machinery)

YAKIMOV, G.D.

Dewatering of paper sheet in high-speed machines under vacuum.  
Bum.prom. 35 no.8:16-18 Ag '60. (MIRA 13:8)

1. Starshiy prepodavatel' Leningradskogo tekhnologicheskogo  
instituta tsellyulozno-bumazhnoy promyshlennosti.  
(Papermaking machinery)



YAKIMOV, G.I.

YAKIMOV, G.I.; SOKOLOVA, N.A.; VOROB'YEVA, A.N.

Dyeing staple fabrics with sulphur dyes. Tekst.prom. 17 no.10:  
40-43 O '57. MIRA 10:12)  
(Dyes and dyeing--Cotton)

YAKIMOV, G.I.; CHERNOMORDIK, A.Z., khimik

Dyeing staple fiber fabrics treated with the KMT6  
sizing. Tekst.prom. 19 no.12:67-69 D '59. (MIRA 13:3)

1. Zaveduyushchiy khimicheskoy laboratoriyy fabriki Bol'-  
shaya Ivanovskaya Manufaktura (for Yakimov). 2. Khimicheskaya  
laboratoriya fabriki Bol'shaya Ivanovskaya Manufaktura (for  
Chernomordik).

(Dyes and dyeing--Cotton) (Cotton sizing)

YAKIMOV, G.I.; CHERNOMORDIK A.Z., inzh.-khimik; KUZNETSOVA, A.P.

Use of hydrogen peroxide for the preparation of starch  
thickeners. Tekst, pron. 21 no.10;62-63 O '61.

(MIRA 14:10)

1. Zaveduyushchiy khimicheskoy laboratoriye fabriki Bol'shaya Ivanovskaya manufaktura (for Yakimov). 2. Khimicheskaya laboratoriya fabriki Bol'shaya Ivanovskaya manufaktura (for Chernomordik). 3. Starshiy master pechatnoy laboratorii fabriki Bol'shaya Ivanovskaya manufaktura (for Kuznetsova).  
(Textile printing)  
(Thickening agents)

YAKIMOV, G.V., prof., doktor tekhn.nauk

Adsorption of radioactive elements when radon waters are being  
conducted through pipes. Nauch.dokl.vys.shkoly; stroi. no.2:  
297-303 '58. (MIRA 12:1)  
(Radioactive substances) (Radon)

YAKIMOV, G.V.

Water and radioactive elements. Vod. i san. tekhn. no.6:27-28  
Je '58. (MIRA 11:5)

(Radioactivity)  
(Water--Purification)

<YAKIMOV, G.V., prof., doktor tekhn.nauk

Method for preventing carbonate deposits from waste mineral  
waters in pipes and canals. Trudy NPI 74:3-17 '59. (MIRA 14:3)

1. Kafedra vodosnabzheniya i kanalizatsii Novocherkasskogo  
politekhnicheskogo instituta.  
(Carbonates) (Mineral waters)

YAKIMOV, G.V.

Bath engineering as a factor in the planning of health resorts.  
Trudy MPI 102:37-44 '59. (MIRA 13:7)  
(Health resorts, watering places, etc.)

YAKIMOV, Georgiy Vasil'yevich, prof., doktor tekhn. nauk; KOGAN, A.S.,  
red.; CHEKRYZHOU, V.A., red. izd-va; LELYUKHIN, A.A., tekhn.  
red.

[Removal of radioactive isotopes from water and sewage] Ochistka  
vedy i stochnoi zhidkosti ot radioaktivnykh izotopov. Moskva,  
Izd-vo M-va kommun. khoz. RSFER, 1961. 84 p. (MIRA 14:9)  
(Radioactivity—Safety measures) (Water—Purification)  
(Sewage—Purification)

YAKIMOV, G.V.

The problem of precision in measuring radon in mineral springs.  
Trudy NPI 114:3-6 '61. (MIRA 15:2)  
(Radon)

YAKIMOV, G.V.

Experimental heating of narzan sulphurous mineral water at the  
drinking counter. Trudy NPI 138:3-10 '63. (MIRA 16:10)

YAKIMOV, G.V.

Problems of radiometric water control. Trudy NPI 157:3-8 '64.  
(MIRA 19:1)

YAKIMOV, G.V.; MATSNEV, A.I.

Technology of the purification of waste waters of the Barnaul  
Factory of Rayon and Synthetic Fibers by the flotation method.  
(MIRA 19:1)  
Trudy NPI 157:9-18 '64.

YAKIMOV, G.V.; ROZHDOV, I.N.

Fouling of water pipelines under the effect of Don River  
water. Trudy NPI 157:19-27 '64.

(MIRA 19:1)

**YAKIMOV, I.A.**

Workdays of the Syzran communication workers. Avtom., telem. i sviaz'  
no.3:41-42 Mr '57. (MILIA 10:4)  
(Syzran--Electric lines)

YAKIMOV, I.A.

Senior electrician Nikolai Novozhenov. Avtom., telem. i sviaz' no.2:  
37-38 F '57. (MIRA 10:4)  
(Novozhegov, Nikolai Stepanovich)

YEVDOKIMOV, I.I.; ALEKSEYEV, V.D.; ASHIKHMIN, A.K.; BAYEV, N.V.; BEGLAR'YAN, P.A.; BYCHKOV, I.A.; VESLOVA, Ye.T.; VYZHEKHOVSKAYA, M.F.; GURETSKIY, S.A.; DEMIDOV, I.M.; YESIPOV, Ye.P.; ZHUKOV, V.D.; ZELINSKIY, M.G.; ZOL'NIKOV, F.T.; ZOLOTAVA, L.I.; KIVIN, A.N.; KOMARNITSKIY, Yu.A.; KONSTANTINOV, A.N.; KUL'CHITSKAYA, A.K.; MAKSIMENKO, I.I.; MELENT'YEV, A.A.; MOROZOV, I.G.; MURZINOV, M.I.; OZEMBLOVSKIY, Ch.S.; OSTRYAKOV, K.I.; PANINA, A.A.; PAVLOVSKIY, V.V.; PERMINOV, A.S.; PERSHIN, B.F.; PRONIN, S.F.; PSHENNYY, A.I.; POKROVSKIY, M.I.; RASPONOMAREV, Ye.A.; SEMIN, I.N.; SKLYAROV, Yu.N.; TIBABSEV, A.I.; FARBEROV, Ya.D.; FEDOROV, G.P.; SHUL'GIN, Ya.S.; YAKIMOV, I.A.; VERINA, G.P., tekhn.red.

[Labor feats of railway workers; stories about the innovators]  
Trudovye podvigi zheleznodorozhnikov; rasskazy o novatorakh. Moskva,  
Gos.transp.zhal-dor.izd-vo, 1959. 267 p. (MIRA 12:9)  
(Railroads) (Socialist competition)

BLINOV, O.S., inzh., SUKACH, G.Ye., inzh., STEPANOV, D.P., inzh., YAKIMOV, I.D., inzh.:  
IVANOV, A.S., red., SEMENOV, S.M., red.; OSOKINA, A.M., red. izd-va;  
BAGHURINA, A.M., tekhn. red.

[Standard technical specifications for building logging roads] Tipovye  
tekhnologicheskie pravila proizvodstva rabot po stroitel'stva  
lesovoznykh dorog. Moskva, Goslesbumizdat. Vol. 2 and 3. [Automobile  
roads] Avtonobil'nye dorogi. Pt. 3. [Engineering structures] Stroitel'stvo  
iskusstvennykh sooruzhenii. 1957. 46.p. (MIRA 11:10)

1. Moscow. Gosudarstvennyy institut po projektirovaniyu lesnogo  
transporta.

(Bridges, Wooden)

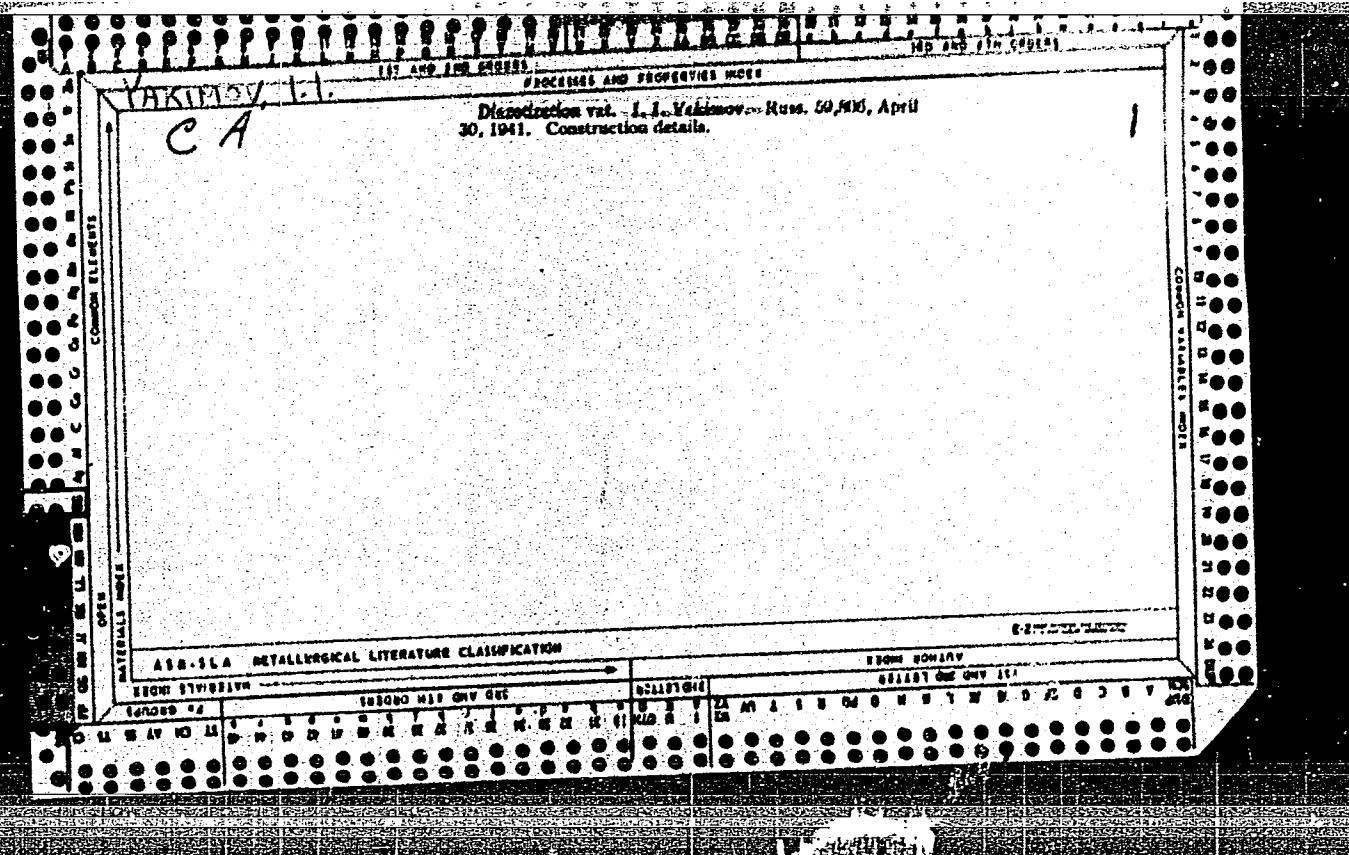
BLINOV, O.S.; BELEN'KIY, Ye.L.; BRAUSEVICH, S.T.; DOROKHOV, B.A.;  
ZIGMUND, F.R.; ITSIKOV, G.B.; LEVER, A.A.;  
LESHCH-BORISOVSKIY, A.I.; MURTUZALIYEV, S.A.; PIIR, A.I.;  
YUZIKHIN, Ye.Ye.; YAKIMOV, I.D.; SHCHELKUNOV, V.V.,  
retsenzent; GONCHAROV, A.F., otv. red.; KORCHUNOV, N.G.,  
otv. red.; NIKOL'SKIY, B.V., otv. red.; POSTREMOV, G.A.  
[deceased]; SLUTSKER, M.Z., red. izd-va; SHIBKOVA, R.Ye.,  
tekhn. red.

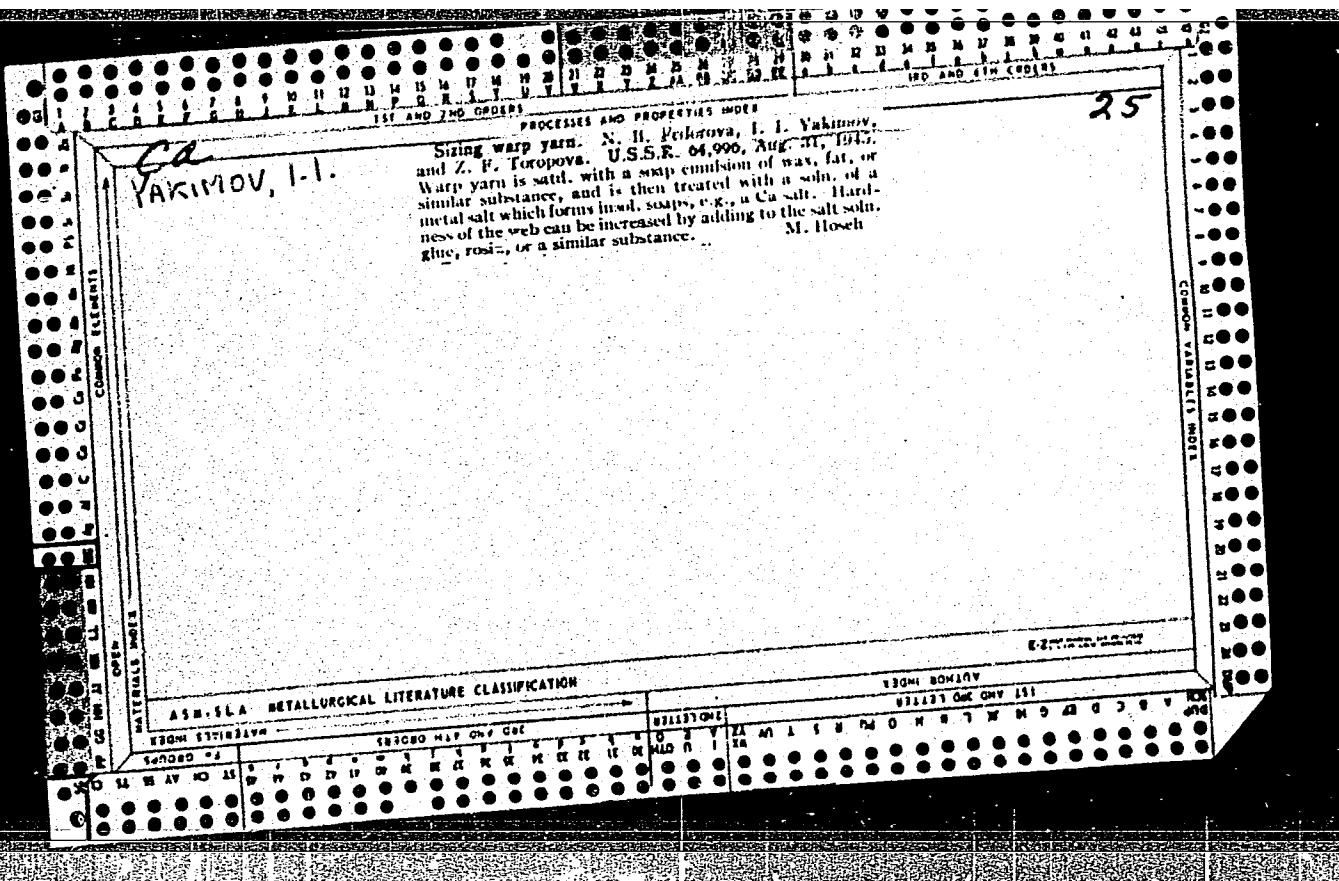
[Lumbering; land transportation of timber] Lesozagotovki;  
sukhoputnyi transport lesa. Spravochnik. Moskva, Gosles-  
buizdat, 1962. 504 p. (MIRA 16:7)  
(Lumber—Transportation)

ZABOLOTNYY, I.I., inzh.; ORLOV, N.A., inzh.; YAKIMOV, I.D.,  
otv. red.

[Manual on engineering geological operations in explorations  
for lumber industry enterprises] Nastavlenie po inzhenerno-  
geologicheskim rabotam pri izyskaniakh predpriatii lesnoi  
promyshlennosti. Leningrad, 1962. 190 p. (MIRA 17:7)

1. Moscow. Gosudarstvennyy institut po proyektirovaniyu les-  
nogo transporta. 2. Gosudarstvennyy institut po proyektirova-  
niyu lesnogo transporta, Moscow (for Zabolotnyy). 3. Nachal'-  
nik tekhnicheskogo otdela Gosudarstvennogo instituta po pro-  
yektirovaniyu lesnogo transporta, Moscow (for Yakimov).

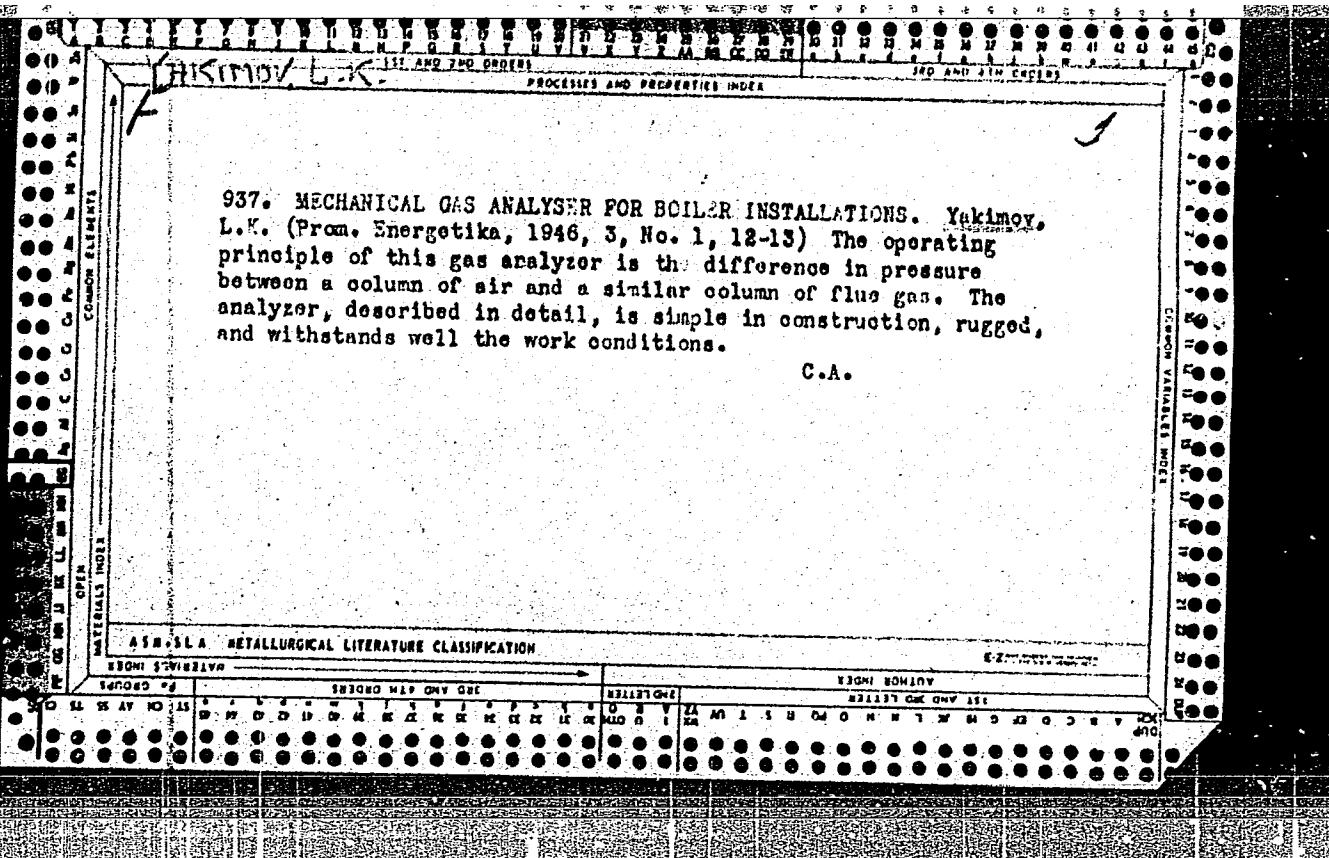


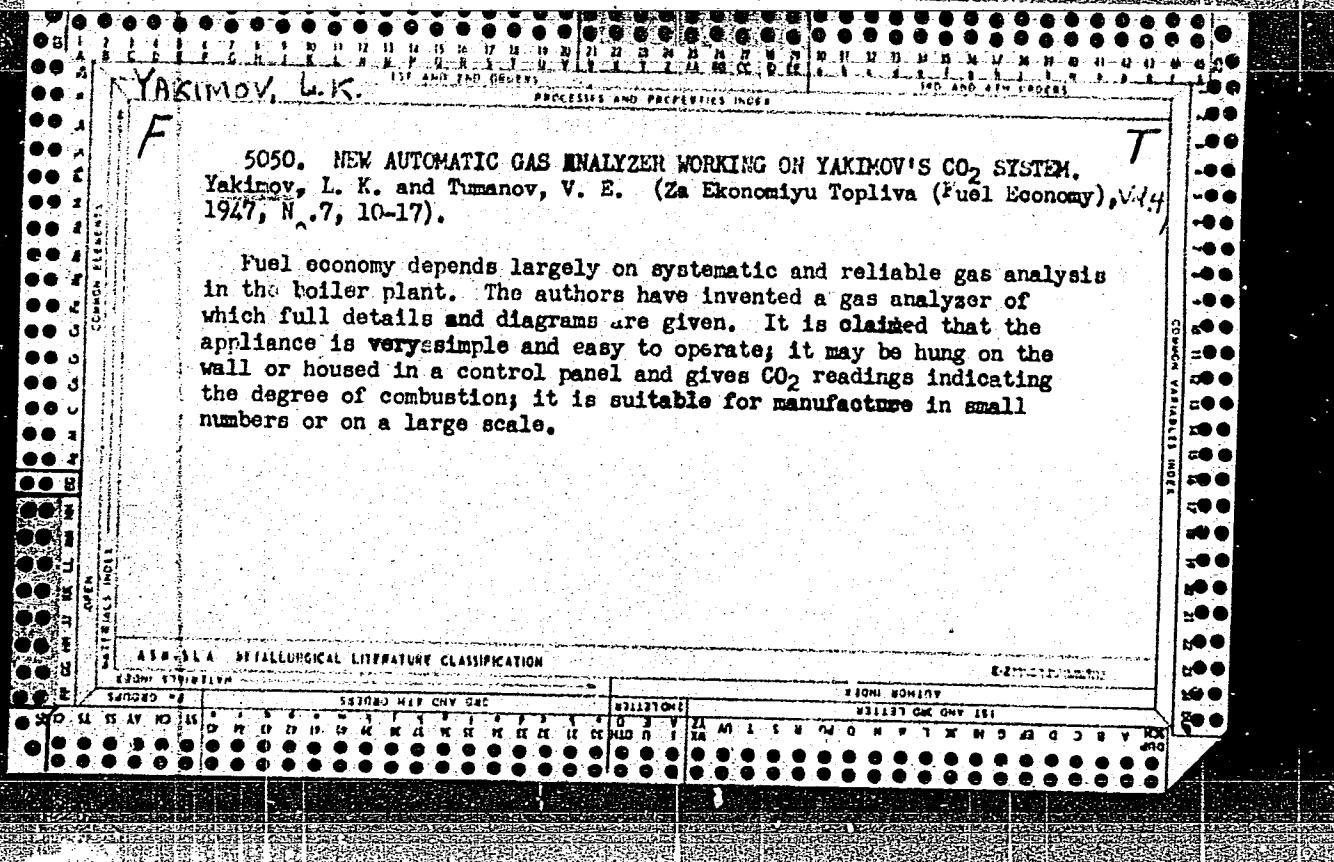


YAKIMOV, L.

KLESHCHEV, V. I YAKIMOV, L. Peredoviki chelyabinskoy oblasti na  
5635. VSKHV v 1954 g. chelyabinsk. Kn. izd, 1954. 96 s. s ill.; ll. ill. 22sm.  
5.000 ekz. 1 r 80k -55-10037p 63(064)(47)+63st(47.812)

So. Knizhnaya, Letopis, 1, 1955





YAKIMOV, L. K.

PA 1T89

USSR/Thermodynamics - gases  
Precision Instruments

1 May 194

"Automatic Gas Weighers," L K Yakimov, 4 pp

"Dok Akad Nauk USSR Nov Ser" Vol LVI, No 4

Gas weighers are a device for measurement of calorific value, rarefaction, and chemical analysis of gas. Can also be used for internal combustion engines, moisture and acid measurements. This new device is highly sensitive and accurate.

1T89

YAKIMOV, L.K., professor, doktor tekhnicheskikh nauk.

Mechanical calorimeter. Biul.stroi.tekh. 10 no.13:19 Ag '53. (ML24 6:19)

1. Moskovskiy institut narodnogo khozyaystva im. G.V.Plekhanova.  
(Calorimeters and calorimetry)

YAKIMOV, L.K.

New thermal insulating materials for underground heating pipes.  
Vod. i san. tekhn. no.12:22-25 D '59. (MIRA 13:3)  
(Heating pipes) (Insulation (Heat))

YAKIMOV, L.K.

This one-pipe hot-water heating system and its technical and  
economic bases. Sbor. nauch. rab. AKH. no.9:152-169 '61.

(MIRA 16:1)

(Hot-water heating)

YAKIMOV, L.K.; LYAKHOV, O.G.; YAKIMOV, O.L.

Contact watertube boiler unit for heat supply to industrial enterprises. Prom.energ. 17 no.1:12-15 Ja '62.

(MIRA 14:12)

(Boilers, Watertube)

YAKIMOV, L.K., doktor tekhn.nauk; TUMANOV, N.Ye., kand.tekhn.nauk; KNYAZEV,  
A.M., kand.tekhn.nauk

Design of the ash and slag conducting pressure pipelines of electric  
power plants. Elek.sta.33 no.1:14-18 Ja '62. (MIRA 15:3)  
(Ash disposal)

YAKIMOV, L.K.; LYAKHOV, O.G.; KHASILEV, V.Ya.; YAKIMOV, O.L.

An efficient type of water-heating boiler unit with a contact  
chamber for a one-pipe system of centralized heat supply. Sbor.  
nauch. rab. AKKH no.9:31-50 '61. (MIRA 16:1)  
(Heating from central stations) (Water heaters)

YAKOVLEV, M.N.; YAKIMOV, L.K., prof., red.; SERGEYEVA, A.S.,  
tekhn. red.

[Laboratory work in electrical engineering] Laboratornye  
raboty po elekrotekhnike; uchebnos posobie dlja studentov  
tekhnologicheskogo i tovarovednogo fakul'tetov. Moskva,  
In-t nar. khoz. 1963. 108 p. (MIRA 16:10)  
(Electric engineering—Laboratory manuals)

YAKIMOV, L.S.; IVANOV, B.I.

Final purification of phenol waters with activated carbon.  
Trudy VNIIT no.12:306-311 '63. (MIRA 18:11)

YAKIMOV, M. A.

9  
1RUL

✓ 4106 AEC-tr-2435((Pl. 2) (p. 101-10))  
SPALLATION AND FISSION REACTIONS OF COMPLEX  
NUCLEI(Cu, La, Bi). A. N. Murin, B. K. Preobrazhensky  
[Preobrazhenskii], I. A. Yuldashev, and M. A. Yakimov,  
p. 101-10 of CONFERENCE OF THE ACADEMY OF  
SCIENCES OF THE USSR ON THE PEACEFUL USES OF  
ATOMIC ENERGY, JULY 1-5, 1955. SESSION OF THE  
DIVISION OF CHEMICAL SCIENCE. (Translation), 10p.

This paper was originally abstracted from the Russian  
and appeared in Nuclear Science Abstracta as NSA 9-7939.

*Yakimov M.A.*

78-2-36/43

**AUTHORS:**

Yakimov, M. A., Nosova, N. F., Grishin, V. A.

**TITLE:**

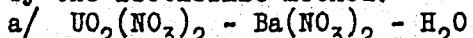
I. Investigations Concerning the Simultaneous Solubility of Uranyl Nitrate and Nitrates of Alkaline-Earth Metals in Water (I. Izuchenie sovmestnoy rastvorimosti nitrata uranila i nitratov shchelochnozemel'nykh metallov v vode)

**PERIODICAL:**

Zhurnal Neorganicheskoy Khimii, 1958, Vol. 3, Nr 2, pp.504-507  
(USSR)

**ABSTRACT:**

The solubility in the following three systems was investigated by the isothermal method:



The saturated solutions were filled into glass ampules which were kept in a thermostat for 3-3 1/2 hours. The solubility was investigated at 0, 25 and 50°C. No critical point indicating a double salt was determined in the system  $\text{UO}_2(\text{NO}_3)_2 -$

Card 1/2

78-2-36/43

**I. Investigations Concerning the Simultaneous Solubility of Uranyl Nitrate and Nitrates of Alkaline-Earth Metals in Water**

-  $\text{Ba}(\text{NO}_3)_2 - \text{H}_2\text{O}$  at 0, 25 and 50°C. In the system  $\text{UO}_2(\text{NO}_3)_2 - \text{Sr}(\text{NO}_3)_2 - \text{H}_2\text{O}$  three solubility curves were determined at 25°C which correspond to the solubility of  $\text{Sr}(\text{NO}_3)_2 \cdot 4 \text{ H}_2\text{O}$ , of anhydrous strontium nitrate and of hexanitrate-uranyl-nitrate.

$\text{UO}_2(\text{NO}_3)_2 - \text{Ca}(\text{NO}_3)_2 - \text{H}_2\text{O}$  has critical points at 0 and 25°C in the case of 6,76%  $\text{UO}_2(\text{NO}_3)_2$ , 43,32%  $\text{Ca}(\text{NO}_3)_2$  and 7,92%  $\text{UO}_2(\text{NO}_3)_2$ , 50,48%  $\text{Ca}(\text{NO}_3)_2$ . At the applied temperatures no double salts were detected in any of the three systems. There are 3 figures, 3 tables, and 3 references, 1 of which is Slavic.

**SUBMITTED:** April 2, 1957**AVAILABLE:** Library of Congress

Card 2/2

AUTHORS: Shchukarev, S.A., Yakimov, M.A., Mishin, V.Ya. Sov 78-3-7-34/44

TITLE: Investigation of the Solubility in the System  $\text{CaNO}_3\text{-HNO}_3\text{-H}_2\text{O}$   
at  $25^\circ$  (Issledovaniye rastvorimosti v sisteme  $\text{CaNO}_3\text{-HNO}_3\text{-H}_2\text{O}$   
pri  $25^\circ$ )

PERIODICAL : Zhurnal neorganicheskoy khimii, 1958, Vol. 3, Nr 7, pp. 1661-1664  
(USSR)

ABSTRACT: Investigations of the solubility of cesium in a nitric acid solution by means of radiometric methods were carried out by the application of radioactive cesium  $\text{Cs}^{134}$ . Determination of solubility was carried out at  $25 \pm 0.05^\circ \text{C}$  in the course of 3.5-4 hours. In a concentrated nitric acid solution ( $d_4^{15} = 1.43\text{-}1.50$ ) the acid salt crystallizes with a composition of  $\text{CaNO}_3\cdot\text{HNO}_3$ . The stability of this acid salt is between  $0^\circ$  and  $50^\circ \text{C}$ . With an increase of temperature the quantity of this salt decreases. From a 96% nitric acid solution the compound  $\text{CaNO}_3\cdot2\text{HNO}_3$  is formed at low temperatures. There are 2 figures, 3 tables, and 7 references, 2 of which are Soviet.

Card 1/2

Investigation of the Solubility in the System  
 $\text{CaNO}_3\text{-HNO}_3\text{-H}_2\text{O}$  at  $25^\circ$

SOV/78-3-7-34/44

SUBMITTED: June 8, 1957

1. Cesium--Solubility    2. Nitric acid--Solvent action    3. Cesium  
compounds--Analysis    4. Cesium isotopes(Radioactive)--Applications

Card 2/2

YAKIMOV, M.A.; NOSOVA, N.F.

Solubility isotherm for the system  $\text{UO}_2(\text{NO}_3)_2 - \text{Mg}(\text{NO}_3)_2 - \text{H}_2\text{O}$  at 0  
and 25°. Zhur. neorg. khim. 5 no. 3:720-721 Mr '60. (MIRA 14:6)  
(Uranyl nitrate)  
(Magnesium nitrate)

s/078/61/006/001/011/019  
B017/B054

AUTHORS: Yakimov, M. A., Nosova, N. F.

TITLE: Solubility Isotherms of the System  $\text{UO}_2(\text{NO}_3)_2$  -  $\text{Be}(\text{NO}_3)_2$  -  $\text{H}_2\text{O}$  at  $0^\circ$  and  $25^\circ\text{C}$

PERIODICAL: Zhurnal neorganicheskoy khimii, 1961, Vol. 6, No. 1,  
pp. 208 - 210

TEXT: The authors studied the solubility in the system  $\text{UO}_2(\text{NO}_3)_2$  -  $\text{Be}(\text{NO}_3)_2$  -  $\text{H}_2\text{O}$  at  $0^\circ$  and  $25^\circ\text{C}$  by M. A. Yakimov's method (Ref.1).

Results are given in a table. Fig.1 shows the solubility isotherms. The authors determined the composition of solutions and solid phases by precipitating beryllium as beryllium hydroxide from oxalic acid solution, and by precipitating uranium as uranyl oxy-quinolate. They studied the solubility isotherms of the system  $\text{UO}_2(\text{NO}_3)_2$  -  $\text{LiNO}_3$  -  $\text{H}_2\text{O}$  at  $0^\circ$  and  $25^\circ\text{C}$ , and give the results in Table 2 and Fig.2. The salting-out capacity of some nitrates decreases in the following order:

$\text{Mg}^{2+} > \text{Be}^{2+} \gg \text{Ca}^{2+} > \text{Li}^+ > \text{Na}^+$ . The position of the beryllium ion in this

Card 1/3

Solubility Isotherms of the System  
 $\text{UO}_2(\text{NO}_3)_2$  -  $\text{Be}(\text{NO}_3)_2$  -  $\text{H}_2\text{O}$  at  $0^\circ$  and  $25^\circ\text{C}$

S/078/61/006/001/011/019  
B017/B054

order is explained by its high hydrolyzability in the solution. Fig.3 shows the number of water molecules within one nitrate molecule as a function of the concentration in mole%. There are 3 figures, 2 tables, and 6 references: 4 Soviet.

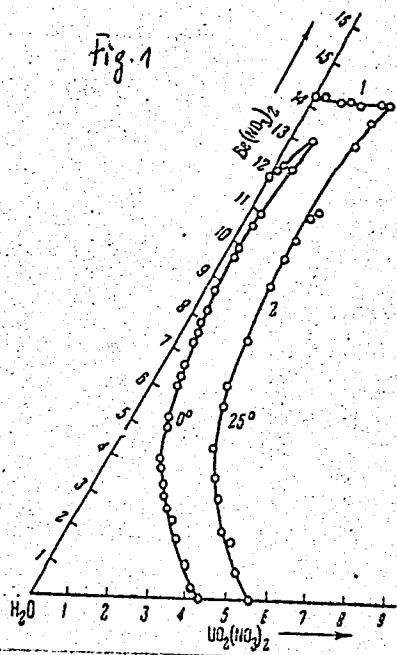
SUBMITTED: October 13, 1959

Card 2/3

S/078/61/006/001/011/019  
B017/B054

Fig.1

Card 3/3



35349

S/C54/62/000/001/007/011  
B121/B138

21.420°

AUTHORS: Yakimov, M. A., Nosova, N. F.

TITLE: Mutual solubility in aqueous systems containing uranyl nitrate and nitrates of other elements

PERIODICAL: Leningrad. Universitet. Vestnik. Seriya fiziki i khimii, no.1, 1962, 106-114

TEXT: The solubility of uranyl nitrate in nitrates of the zinc subgroup was studied by M. A. Yakimov's and N. F. Nosova's method (Ref. 8, M. A. Yakimov, N. F. Nosova, ZhNKh, 5, 3, 720, 1960). Equilibrium in the systems  $\text{UO}_2(\text{NO}_3)_2 - \text{Me}(\text{NO}_3)_2 - \text{H}_2\text{O}$  was usually reached after 2.5-3 hrs. At 0°C and 25°C, the solubility isotherm in the system  $\text{UO}_2(\text{NO}_3)_2 - \text{Zn}(\text{NO}_3)_2 - \text{H}_2\text{O}$  was found to have two branches: a smaller one with zinc nitrate in the solid phase, and a larger one with uranyl hexanitrate in the solid phase. The solubility in this system was found using radioactive  $\text{Zn}^{65}$  as indicator. Schreinemakers method was applied to determine the composition in the solid phase. In the system  $\text{UO}_2(\text{NO}_3)_2 - \text{Cd}(\text{NO}_3)_2 - \text{H}_2\text{O}$ , the solubility was X

Card 1/2

S/054/62/000/001/007/011  
B121/B138

Mutual solubility in aqueous ...

also determined at 0 and 25°C, and the solubility isotherm was found to form a curve with a eutectic point. In the system  $\text{UO}_2(\text{NO}_3)_2 - \text{Hg}(\text{NO}_3)_2 - \text{H}_2\text{O}$ , only the saturated solution was studied at 0, 15, and 25°C. The course of the solubility isotherm of the system  $\text{UO}_2(\text{NO}_3)_2 - \text{Me}(\text{NO}_3)_2 - \text{H}_2\text{O}$  ( $\text{Me} = \text{Zn}, \text{Cd}, \text{and Hg}$ ) showed that no new phase is formed between 0 and 25°C. Interaction among the individual components in the system, however, is quite possible. Complex compounds of the type  $\text{MeUO}_2(\text{NO}_3)_4$ , mentioned in publications, occur either in strongly acid media or at low temperatures, where nitric acid probably supports the formation of  $[\text{UO}_2(\text{NO}_3)_3]^\parallel$  and  $[\text{UO}_2(\text{NO}_3)_4]^\parallel$  anion complexes and reduces the effect of water during complexing. There are 2 figures, 8 tables, and 14 references: 7 Soviet-bloc and 7 non-Soviet-bloc. The four references to English-language publications read as follows: E. Glueckauf, H. A. C. McKay, R. Mathiesow. J. Chem. Soc., 299 (supplementary issue 2) 1949. A. H. C. McKay. Chemistry and industry, No. 51, 1954. T. R. Scott, Analyst, 74, 486, 1949. J. W. Mellor. A comprehensive treatise of inorganic and theoretical chemistry. 12, U, Mn, Ma, Re, Fe, (part 1), 1932.

Card 2/3

YAKIMOV, M.A.; NOSOVA, N.F.

Reciprocal solubility in water systems containing uranyl nitrate  
and nitrates of other elements. Vest. LGU 17 no.4:106-114 '62.  
(MIRA 15:3)

(Uranyl nitrate)(Systems(Chemistry))(Solubility)

YAKIMOV, M.A.; NOSOVA, N.F.; DEGTYAREV, A.Ya.; YUY TSYAN'-TSI [Yu Ch'ien-ch'i]

Interaction of components in the systems type  $\text{MeNO}_3 - \text{UO}_2(\text{NO}_3)_2 - \text{H}_2\text{O}$ .  
Radiokhimia 5 no.1:73-80 '63. (MIRA 16:2)

(Uranyl compounds)  
(Nitrates) (Solubility)

YAKIMOV, M.A.; NOSOVA, N.F.; FILIPPOV, V.K.

Change of the chemical potentials of water in the systems type  
 $\text{UO}_2(\text{NO}_3)_2 - \text{M}(\text{NO}_3)_n - \text{H}_2\text{O}$  at  $25^\circ\text{C}$ . Radiokhimiia 5 no.4:474-  
479 '63. (MIRA 16:10)

(Uranium compounds) (Water) (Activity coefficients)

8/078/63/008/001/021/026  
B189/B101

AUTHORS: Yakimov, M. A., Mishin, V. Ya.

TITLE: Solubility in the system  $\text{CsNO}_3 - \text{HNO}_3 - \text{H}_2\text{O}$  at temperatures of 0, 35, and  $50^\circ\text{C}$

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 8, no. 1, 1963, 226 - 230

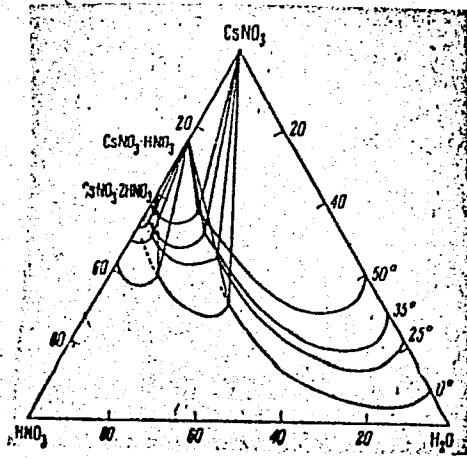
TEXT: Mixtures of  $\text{CsNO}_3 - \text{HNO}_3 - \text{H}_2\text{O}$  were prepared in different concentrations at 0, 35, and  $50^\circ\text{C}$  and analyzed according to Schreinemakers. Analogous studies were carried out at  $25^\circ\text{C}$  to define previous data more exactly. The results were used to plot the solubility isotherms (Fig. 1). In view of the cesium ion being able to reduce  $\text{HNO}_3$  dissociation, and of  $\text{HNO}_3$  tending towards polymerization, the formula  $\text{Cs}[\text{HNO}_3 \cdot \text{NO}_3]$  is suggested for the solvate  $\text{CsNO}_3 \cdot \text{HNO}_3$ , and  $\text{Cs}[(\text{HNO}_3)_2 \cdot \text{NO}_3]$  for  $\text{CsNO}_3 \cdot 2\text{HNO}_3$ . The formation of complexes having the form  $M[\text{HNO}_3 \cdot \text{NO}_3]$  and  $M[(\text{HNO}_3)_2 \cdot \text{NO}_3]$  is discussed. There are 2 figures and 1 table.

SUBMITTED: March 23, 1962  
Card 1/2

Solubility in the system...

S/078/63/008/001/021/026  
B189/B101

Fig. 1. Solubility isotherms of the system  $\text{CsNO}_3\text{-HNO}_3\text{-H}_2\text{O}$  at 0, 25, 35, and  $50^\circ\text{C}$ . (The compositions of the solutions are expressed in % by weight).



Card 2/2

YAKIMOV, M.A.; MISHIN, V.Ya.; GOLOVA, L.F.

Solubility in the system  $TlNO_4 - HNO_3 - H_2O$  at 0 and 25°C.  
Zhur. neorg. khim. 8 no.6:1470-1472 Je '63. (MIRA 16:6)

(Thallium nitrate) (Nitric acid)  
(Solubility)

36977-65  
ACCESSION NR: AP4043853

S/0186/64/006/004/0454/0459

7  
B

AUTHOR: Yakimov, M. A.; Mishin, V. Ya.

TITLE: A study of heterogeneous equilibria in the ternary system uranyl nitrate - nitric acid - water. Part I. Solubility isotherms of the system uranyl nitrate - nitric acid - water at 25, 35 and 50°C

SOURCE: Radiokhimiya, v. 6, no. 4, 1964, 454-459

TOPIC TAGS: heterogeneous equilibrium, solubility isotherm, uranyl nitrate, nitric acid solution, uranyl nitrate disolvate

ABSTRACT: The isothermal method was used to study the solubility of uranyl nitrate in nitric acid solutions at 25, 35 and 50°C. In this study, uranyl nitrate was determined gravimetrically in the usual way (precipitation of ammonium diuranate which yields uranium oxides on heating), nitric acid was determined by titration with NaOH after adding the "blue salt" indicator, and water was determined by difference. The solubility isotherms constructed for these 3 temperatures (see Fig. i of the Enclosure) consist of 4 branches, corresponding to the solubility of

YAKIMOV, M.A.; MISHIN, V.Ya.; FILIPPOV, V.K.

Heterogeneous equilibria in the ternary system  
 $\text{UO}_2(\text{NO}_3)_2 - \text{HNO}_3 - \text{H}_2\text{O}$ . Part 3: Solution - vapor equilibrium of the  
binary system  $\text{UO}_2(\text{NO}_3)_2 - \text{H}_2\text{O}$  at 25 and 50°C. Radiokhimiia 6 no.5:  
548-552 '64. (MIRA 18:1)

YAKIMOV, M.A.; MISHIN, V.Ya.

Heterogeneous equilibria in the ternary system  $\text{UO}_2(\text{NO}_3)_2 - \text{HNO}_3 - \text{H}_2\text{O}$ ,

Part 2: Solution - vapor equilibrium of the binary system

$\text{HNO}_3 - \text{H}_2\text{O}$  at 25, 35 and 50°C. Radikhimiia 6 no. 5:543-548 '64.

(MIRA 18:1)

YAKIMOV, M.A.; MISHIN, V.Ya.; NOSOVA, N.F.; FILIPPOV, V.K.

Heterogeneous equilibria in the ternary system  $\text{UC}_2(\text{NO}_3)_2\text{-HNO}_3\text{-H}_2\text{O}$   
Part 4: Solution-vapor equilibrium of the binary system uranyl nitrate-nitric acid-water at 25 and 50°C. Radiokhimiia 6 no.5:552-558 '64.  
(MIRA 18:1)

YAKIMOV, N. N.

USSR/Medicine (Vet) - Infectious Diseases

Aug 51

"Prophylaxis and Treatment of Equine Infectious Anemia According to Prof G. M. Bosh'yan,"  
A. V. Mukhachev, Sr Vet Phys, N. N. Yakimov, Chief Vet Phys of Rayon Agr Div

"Veterinariya" Vol XXVIII, No 8, pp 36, 37

By using the officially approved procedure (quarantine and disinfection), elimination  
of the disease could not be brought about. On the other hand, Bosh'yan's procedure,  
which involves use of VIEV (All-Union Inst of Vet Med) anemin for diagnosis and of  
VIEV vaccine, proved successful. Lasting immunity (1 yr) is conferred by VIEV vaccine

188T90

YAKIMOV, N. N.

SOV/112-58-2-2913

Translation from: Referativnyy zhurnal, Elektrotehnika, 1958, Nr 2, p 175 (USSR)

AUTHOR: Yakimov, N. N., and Bernashevskiy, G. A.

TITLE: Electron-Beam Devices (Elektronno-luchevyye pribory)

PERIODICAL: V sb.: Uspekhi elektrovakuum, tekhniki. M.-L., 1956, pp 126-178

ABSTRACT: The principle of operation and the physical phenomena of the electronic devices most promising or interesting from the authors' viewpoint are considered. All existing electron-beam devices are subdivided by the authors into three large groups according to their electron-beam shape: (1) devices with a narrow axial beam; (2) devices with a flat (tape) beam; (3) devices with a broad electron beam. Among the devices of the first group, 5 types of electrostatic memory tubes are considered (graphecon, a barrier-grid memory tube, a memory tube with a permeable potential carrier, a memory with photoelectric readout, a memory with a supporting beam), as well as a number of color television receiving tubes (a ruled-screen tube with post focusing and 1 or 3 guns, a tube with 3 lattice-type screens, a tube with 2 control grids, and a

Card 1/2

SOV/112-58-2-2913

Electron-Beam Devices

tube with 45°-electron beam reflection). Among the devices of the second group, electron-beam switching tubes with a flat radial beam are presented, as well as a scaling tube with a flat deflecting beam and 4 types of trochotrons (linear, 2-dimensional, pyramid-type trochotron, ring-type). Of the wide-beam group, image translators are considered.

N. L. Ya.

Card 2/2

S/058/61/000/010/092/100  
A001/A101

9,3120

AUTHORS: Yakimov, N.N., Sherstnev, L.G.

TITLE: Application of the tagged atom method to investigation of diffusion processes in oxide cathode

PERIODICAL: Referativnyy zhurnal. Fizika, no. 10, 1961, 284, abstract 10Zh10  
("Tr. Mosk. energ. in-ta", 1961, no. 34, 315 - 322)

TEXT: The authors describe the method of investigating diffusion of excessive metal in coating of oxide cathode; it is more complete than employed earlier and takes into account the structure and real conditions of cathode operation. The method enables one to investigate directly diffusion processes and to estimate simultaneously evaporation from the coating surface of the metal diffused through the coating.

[Abstracter's note: Complete translation]

Card 1/1

YAKIMOV, L.K.; LYAKHOV, O.G.; KHASILEV, V.Ya.; YAKIMOV, O.L.

An efficient type of water heating boiler unit with a contact  
chamber for a one-pipe system of centralized heat supply. Sbor.  
nauch. rab. AKKH no.9:31-50 '61. (MIRA 16:1)  
(Heating from central stations) (Water heaters)

YAKIMOV, L.K.; LYAKHOV, O.G.; YAKIMOV, O.L.

Contact watertube boiler unit for heat supply to industrial enterprises. Prom.energ. 17 no.1:12-15 Ja '62.

(MIRA 14:12)

(Boilers, Watertube)

ORLOV, V.V., inzh.; YAKIMOV, P.A. (Novosibirsk); KHLYZOV, A.G.,  
starshiy dorozhnyy master (Novosibirsk)

Letters to the editor. Put' i put.khoz. 5 no.11:41 N '61.  
(MIRA 14:12)

1. Nachal'nik distantsii puti, st. Levshino, Sverdlovskoy dorogi  
(for Orlov). 2. Starshiy inspektor Glavnogo upravleniya  
material'no-tehnicheskogo obespecheniya, g. Novosibirsk (for  
Yakimov).

(Railroads—Track)

ANISIMOVA, K.I.; YAKIMOV, P.A.

Obtaining gum from the aerial part of tragacanth-bearing milk  
vetches by the method of extraction. Trudy Bot. inst. Ser. 5  
no.11:321-324 '63. (MIRA 16:10)

SHTEYNBOK, S.D.; ANISIMOVA, K.I.; YAKIMOV, P.A.

Studying the conditions of tragacanth gum purification.  
Trudy Bot. inst. Ser. 5 no.11:325-327 '63. (MIRA 16:10)

YAKIMOV, P.A. (Moskva)

Power type hydraulic servo drives with computing attachment.  
Avtom. i telem. 25 no.4:547-554 Mr '64. (VIZU 1716)

